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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|------------------------|---------------------|------------------|
| 09/856,424  | 05/21/2001  | Christoph Mecklenbauer | 12758-026001        | 7773             |
| 26161   | 7590        | 07/26/2005             |                     | EXAMINER         |
| FISH & RICHARDSON PC<br>P.O. BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                        |                     | KADING, JOSHUA A |
|   |             |                        | ART UNIT            | PAPER NUMBER     |
|   |             |                        | 2661                |                  |

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                       |
|------------------------------|-----------------|-----------------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)          |
|                              | 09/856,424      | MECKLENBRAUKER ET AL. |
|                              | Examiner        | Art Unit              |
|                              | Joshua Kading   | 2661                  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 14 April 2005.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20, 22 and 23 is/are rejected.  
 7) Claim(s) 10, 14, 18 and 21 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 21 May 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Objections***

1. Claims 10, 14, and 18 are objected to because of the following informalities:

Claim 10, line 2 states, "data transmission means for transmitting" and line 5, "signaling means for". These should be changed to --means for transmitting-- and --means for-- respectively.

Claim 14, line 3 states, "mapping means for mapping". This should be changed to --means for mapping--.

Claim 18, line 4 states, "setting means for setting" and line 6 states, "transmitting means for transmitting". These should be changed to --means for setting-- and --means for transmitting-- respectively.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,018,528 Gitlin et al. (Gitlin) in view of U.S. Patent 3,936,609, Waldeck.

Regarding claims 1 and 10, Gitlin discloses, "a communication system comprising: means for transmitting data for a first service and for a second service over a common physical channel, the first service having a first type of data rate dynamics and the second service having a second type of data rate dynamics (*figure 4 shows the first service 26 and a second service 27 in a common channel*)."

However, Gitlin lacks what Waldeck discloses, "signaling means (*figure 1, element 12*) for: (i) signaling, in a first channel, the first transport format for the first service; and (ii) signaling, in a second channel, the second transport format for the second service, the first channel and the second channel comprising separate channels (*col. 2, lines 14-23 where the signaling channels, each representing the various data channels, of Waldeck are part of the channels in a TDM system such as that of Gitlin, figure 4*)."

It would have been obvious to one of ordinary skill in the art at the time of invention to include the signaling means with the transmitting means motivated by the desire to control setup and disconnection of channels of communication as is known in the art.

Regarding claims 2 and 15, Waldeck lacks what Gitlin discloses, "wherein the data transmission means comprises a radio communication system (*col. 3, lines 13-21*)." It would have been obvious to one of ordinary skill in the art at the time of invention to include the radio communication system for the same reasons and motivation as in claims 1 and 10.

Regarding claims 4 and 12, Gitlin lacks what Waldeck discloses, "wherein the second channel comprises a monitoring channel (*figure 1 where the signaling channels are monitoring channels in the sense that they are available to the data channels for control when given services are requested, such as disconnect*)."<sup>1</sup> It would have been obvious to one of ordinary skill in the art at the time of invention to include the monitoring channel for the same reasons and motivation as in claims 1 and 10.

Regarding claims 11 and 19, Waldeck lacks what Gitlin discloses, "wherein data rate dynamics corresponds to a fluctuation in data rate over time, the first type of data rate dynamics having a higher fluctuation in data rate over time than the second type of data rate dynamics (*col. 4, lines 64-col. 5, lines 1-5 where the requests by the users for varying bandwidth indicates that the data rate fluctuates over time and since the first service is voice and the second is data, the second service inherently has a higher data rate fluctuation by its higher data rate content*)."<sup>2</sup> It would have been obvious to one of ordinary skill in the art at the time of invention to include the different rate dynamics for the same reasons and motivation as in claims 1 and 10.

Regarding claims 13 and 20, Waldeck lacks what Gitlin discloses, "wherein the signaling means signals the second transport format if a data rate changes for the second type of data rate dynamics (*col. 4, lines 64-col. 5, lines 1-5 where the very act of requesting more bandwidth is done because of a changing data rate and is further done*).

*through signaling means as is known in the art).*" It would have been obvious to one of ordinary skill in the art at the time of invention to include the signaling means if a data rate changes for the same reasons and motivation as in claims 11 and 19.

Claim 5 is rejected for the same reasons and motivation as in claims 19 and 20.

Regarding claims 6 and 14, Waldeck lacks what Gitlin discloses, "means for mapping data for the first and second services onto a coded common transport channel, the coded common transport channel corresponding to the common physical channel (figure 7, "code space"); and means for spreading data on the coded common transport channel over a plurality of physical channels (*figure 7 shows the coded data spread over the physical channels*)."  
It would have been obvious to one of ordinary skill in the art at the time of invention to include the coded space for the same reasons and motivation as in claims 1 and 10.

Regarding claims 7 and 16, Waldeck lacks what Gitlin discloses, "wherein the signaling means signals a partial information item, the partial information item corresponding to transport formats for services with a specific type of data rate dynamics, the specific type of data rate dynamics comprising the first type of data rate dynamics, the partial information item comprising a binary code having a number that is less than a total number of permitted combination of services (*figure 7, where the code data used is binary information and since each channel contains both a voice and data*

*service and only one code per channel, there will always be less binary codes than services).*" It would have been obvious to one of ordinary skill in the art at the time of invention to include the partial information item and binary code for the same reasons and motivation as in claims 1 and 10.

Regarding claims 8 and 17, Waldeck lacks what Gitlin discloses, "wherein the data is transmitted over the common physical channel in frames, and the partial information item is transmitted in the frames (*figure 3*)." It would have been obvious to one of ordinary skill in the art at the time of invention to include the frames for the same reasons and motivation as in claims 7 and 16.

Regarding claims 9 and 18, Gitlin lacks what Waldeck discloses, "means for setting a signaling capacity in at least one of the first channel and the second channel (col. 2, *lines 66-col. 3, line 1*); and means for transmitting the partial information item via a plurality of frames (*figure 1, element 12*)."  
It would have been obvious to one of ordinary skill in the art at the time of invention to include the setting means and further transmitting means for the same reasons and motivation as in claims 7 and 16.

Regarding claims 22 and 23, Gitlin lacks what Waldeck discloses, "a receiver to receive the data from the data transmission means, the receiver comprising evaluation means for evaluating the data based on the first and second transport formats (*figure 1, elements 16 and 24 and where the transport formats are evaluated based on the*

*respective data in the signaling channels).*" It would have been obvious to one of ordinary skill in the art at the time of invention to include the receiver for the same reasons and motivation as in claims 1 and 10.

Regarding claim 3, Waldeck lacks what Gitlin discloses, "wherein the radio interface comprises broadband frequency channels that include the first and second channels (*figure 4 shows the time slot of the broadband channel with the various channels for voice and data*); and wherein the first and second channels are separated by at least one of a spread code and a time slot (*figure 7 shows both code and time slot separations*)."  
It would have been obvious to one of ordinary skill in the art at the time of invention to include the broadband channels and separation by a code or time slot for the same reasons and motivation as in claim 2.

#### ***Allowable Subject Matter***

4. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading  
Examiner  
Art Unit 2661

July 20, 2005



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